

REMARKS

Upon entry of this amendment, claims 30-58 will be at issue. Two of the twenty-nine claims (claims 30 and 50) are independent. The number of claims has not changed, so no new claim fee is believed to be required.

In rejecting each of the claims, the examiner appears to have relied upon the Gelbman '650 patent as disclosing a voltage input selector (R10 or R30) that "select[s] the voltage at which [a] controller [U1,1 or U1,13] is operated." Office action at page 3. The Gelbman device is a battery charger that has a pulse generator that is used to desulfate lead-acid batteries. Pulses are generated by turning a charging current on and off through the use of a switch Q1:

Third electrical circuit means 22 further has means 34 in circuit relationship with switch Q1 for pulsing switch Q1 on and off to automatically pulse the battery charging current on and off.

In normal operation, Q1 is fully on and connects the charged input capacitor C1 to battery 12 allowing the battery to charge. In the antislulfation mode of operation, an oscillator (pulse generator) 34 ... generates the waveform required to turn Q1 off for a few microseconds. ... It is this rapid turn on and turn off of Q1 which causes the antislulfation operation.

Col. 4, ll. 5-22.

In the Gelbman device, the antislulfation mode of operation (in which the pulsing occurs) only proceeds when the voltage of the battery in question lies within a specific, predetermined voltage range. In the given example, the antislulfation mode begins when the voltage of the battery is brought up to 13.8 volts. Col. 4, ll. 35-41. This initial threshold at which the antislulfation mode begins is controlled by a zener diode. Col. 4, line 64- col. 5, lines 1. The antislulfation mode ends (and bulk re-charging resumes, with no pulsing or antislulfation) when the voltage drops to 12 volts. Col. 5, lines 7-10. The patent does not disclose any structure that

enables a user to vary the threshold levels at which the antisulfation mode begins or ends, or provide any suggestion of a reason why a user would want to vary those levels.

As in the prior art, the applicant's device is arranged so that pulses are not generated if the battery voltage is below the selected voltage threshold. As noted at page 12, lines 18-22:

If the battery voltage is lower than the selected threshold voltage, the output of comparator IC1a is low which disables NAND gate IC2c and, hence, the pulse generator 11 since the square wave produced by the square wave generator is not passed to the transistor Q1.

However, the applicant's invention has a voltage input selector that enables the user to select the voltage threshold. An example of this type of selector is disclosed at page 11, lines 21-22:

The selector switch S1 allows the threshold voltage value to be selected from one of two possible options.

This structure has been incorporated into each of the new independent claims of this application. Specifically, claim 30 recites, "a voltage input selector that enables a user to select a voltage threshold below which pulses are not generated." Claim 50 recites, "a voltage input selector that enables a user to select a voltage threshold below which periodic pulses are not generated." Because the art does not disclose or suggest such a selector, these independent claims are believed to be patentable.

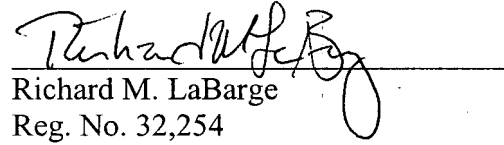
Claims 31-33 recite further refinements of the selector. Specifically, claim 30 recites that the voltage input selector "enables the user to select from at least two possible voltage thresholds." Claim 32 recites that the voltage input selector "enables the user to select either a high voltage threshold or a low voltage threshold." Claim 33 recites that the voltage input selector "has a switch coupled to a voltage divider." Each of these additional recitations is believed to provide an independent basis for patentability of these claims.

These changes are believed to put the application in form for allowance. The applicants request a notice of allowance of claims 30-58.

Respectfully submitted,

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